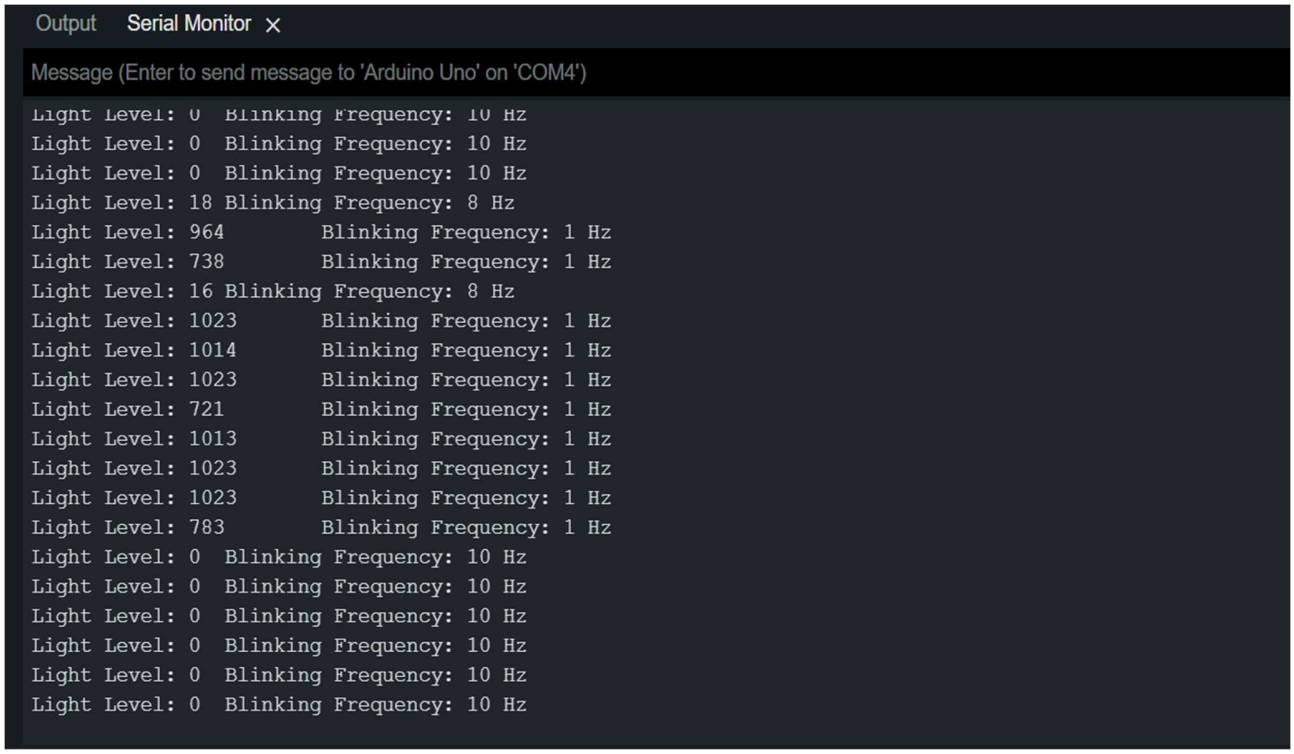
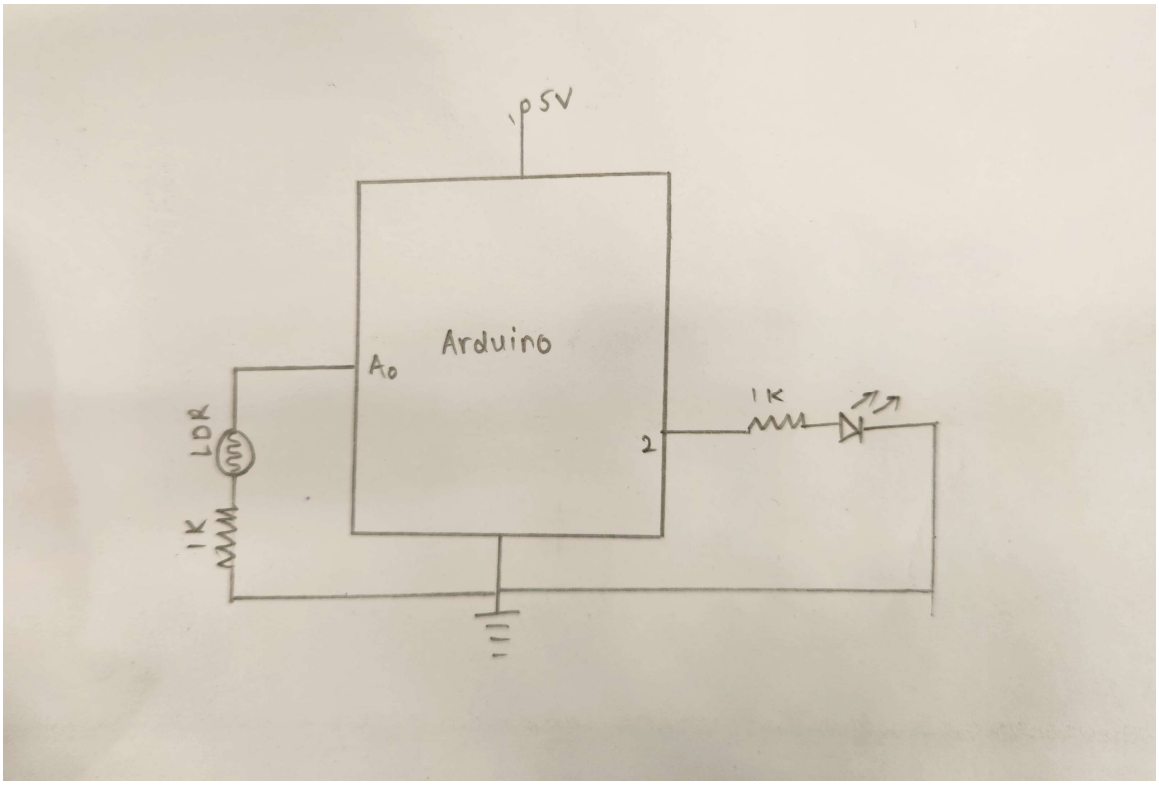
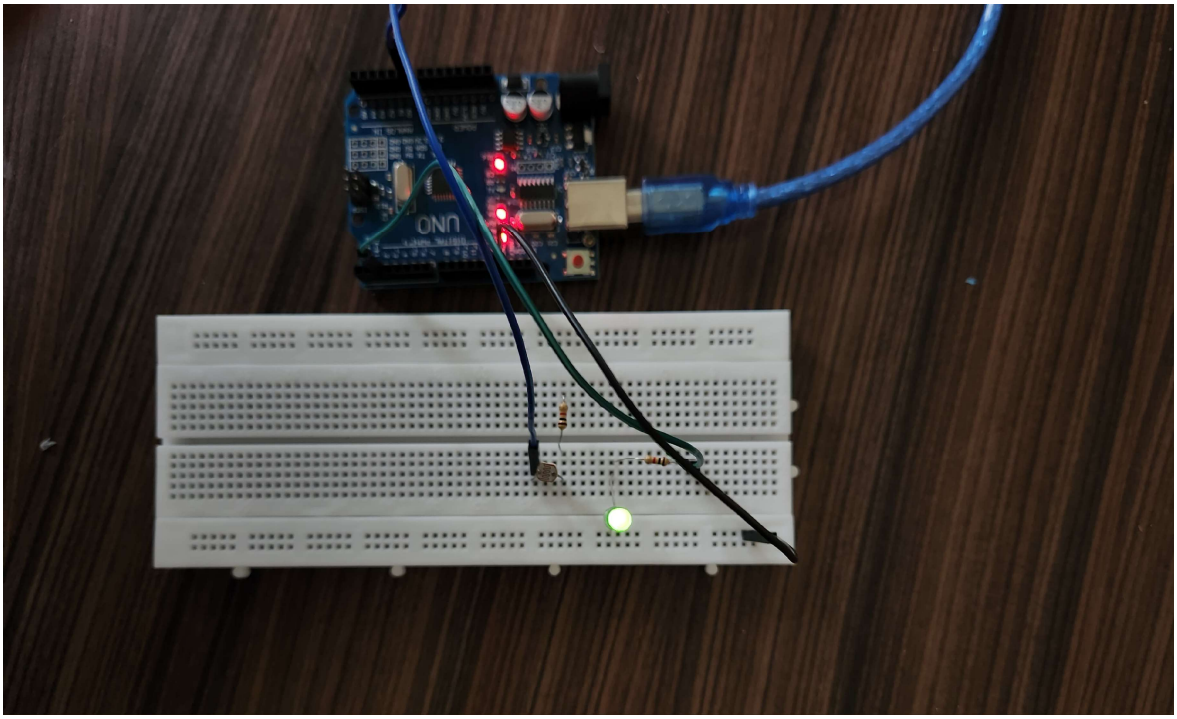
```
/*

Experiment No. :    10
Statement      : Blink an LED in accordance with the brightness.
Blinking frequency increases with increase in brightness.

Date of Exp.   :    xx/xx/xxxx

Author         :    Mansi Mandhane (A-24)

*/

const int ledPin = 2;      // Pin number for the LED

const int ldrPin = A0;  // Pin number for the ldr


void setup() {

  pinMode(ledPin, OUTPUT);

  Serial.begin(9600);

}


void loop() {

  int lightLevel = analogRead(ldrPin);


  // Map the light level to a blinking frequency

  int blinkInterval = map(lightLevel, 0, 1023, 100, 1000);


  digitalWrite(ledPin, HIGH); // Turn on the LED

  delay(blinkInterval);
```

```
  digitalWrite(ledPin, LOW);  // Turn off the LED
  delay(blinkInterval);
  // Print the light level and blinking frequency to the serial monitor
  Serial.print("Light Level: ");
  Serial.print(lightLevel);
  Serial.print("\tBlinking Frequency: ");
  Serial.print(1000 / blinkInterval); // Frequency in Hz
  Serial.println(" Hz");
}
```




+5V
Arduino
A0
LDR
1K
2
1K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